BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF HAWAII

In the Matter of the Application of)

HAWAIIAN ELECTRIC COMPANY, INC.

For Approval of Amendment No. 3 to)

Power Purchase Agreement with AES)

Hawaii, Inc.

DOCKET NO. 2016-0007

DECISION AND ORDER NO.

34283

PUSLIC UTILLITIES

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Order No. 34283

DECISION AND ORDER

By this Decision and Order, the Public Utilities Commission ("commission"), denies Hawaiian Electric Company, Inc.'s request to amend its power purchase agreement ("PPA") with AES Hawaii, Inc. ("AES") without prejudice. The commission issues this Decision and Order ("Order") in response to the Application filed by HECO on January 22, 2016. In setting

¹The Parties to this docket are HAWAIIAN ELECTRIC COMPANY, INC. ("Company" or "HECO"), and the DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, DIVISION OF CONSUMER ADVOCACY ("Consumer Advocate"), an ex officio party to this proceeding, to Hawaii Revised Statutes ("HRS") § 269-51 Hawaii Administrative Rules ("HAR") § 6-61-62(a). Additionally, the commission granted Blue Planet Foundation ("Blue Planet") participant status in this proceeding. See Docket No. 2016-0007, Order No. 33879, "(1) Denying Blue Planet Foundation's Motion to Intervene and Granting It Participant Status; and (2) Instructing the Parties to File a Proposed Stipulated Procedural Order," ("Order No. 33879"), filed on August 18, 2016.

²"Hawaiian Electric Company, Inc.'s Application; Exhibits 1-6; Verification; and Certificate of Service," filed on

forth the decision to deny HECO's request without prejudice, the commission discusses elements that a proposal for a contract amendment, such as the one in the Application should include, as well as customer benefits and impacts, so that the commission can fully evaluate whether the proposed amendment is reasonable and in the public interest.

I.

Background

HECO is a public utility engaged in the production, purchase, transmission, distribution, and sale of electricity on the island of Oahu.³ In its Application, HECO requests that the commission approve an amendment ("Amendment Three") to an existing PPA between HECO and AES ("Existing PPA").⁴ AES is a Delaware corporation qualified to do business in the State of Hawaii as a foreign corporation.⁵

January 22, 2016 (collectively, "Application"), as supplemented by the documents filed under confidential seal on May 11, 2016.

³Application at 8.

⁴Application at 1. The Existing PPA consists of a power purchase agreement dated March 25, 1988, and subsequent amendments and modifications described in more detail below, and in the Application, at 9.

⁵Application at 8.

The Existing PPA currently provides for the sale by AES and purchase by HECO of 180 megawatts ("MW") of capacity and associated electric energy from a coal-fired cogeneration facility located at Barbers Point, Ewa District, Oahu, owned and operated by AES (the "Facility").6 Amendment Three, if approved, would allow AES to provide HECO up to an additional 9 MW of capacity from the Facility, subject to a demonstration of its availability.7

HECO requests that the commission approve Amendment Three, asserting that it: (1) is consistent with the commission's Inclinations and HECO's Power Supply Improvement Plan; (2) will increase the reliable supply of electricity to HECO's customers; and (3) is in the public interest.8

⁶Application at 1.

⁷Application at 2.

^{*}Application at 2 (citing <u>In re Public Util. Comm'n</u>, Docket No. 2012-0036, Decision and Order No. 32052, filed April 28, 2014, Exhibit A ("Inclinations"); and Hawaiian Electric's Power Supply Improvement Plan ("PSIP"), filed on August 26, 2014 in Docket No. 2011-0206, and transferred to Docket No. 2014-0183 by Order No. 32291, on September 14, 2014). On April 1, 2016, HECO, Hawaii Electric Light Company, Inc. ("HELCO"), and Maui Electric Company, Limited ("MECO") jointly filed "Hawaiian Electric Companies' PSIPs Update Report" ("April 2016 PSIP Update") with the commission in Docket No. 2014-0183.

Changes to Existing PPA

The Existing PPA consists of a power purchase agreement dated March 25, 1988, an amendment dated August 28, 1989, a subsequent amendment dated May 8, 2003, and various additional clarifications. The Existing PPA provides for a thirty (30) year term, which expires on September 1, 2022. AES and HECO negotiated Amendment Three pursuant to the dispute resolution provisions of the Existing PPA. 11

Amendment Three makes changes to the Existing PPA, including but not limited to: (A) allowing HECO to purchase from AES up to an additional 9 MW of firm capacity and the associated energy from the Facility; 12 (B) allowing AES to earn a reliability bonus of up to \$1,000,000 for each contract year; 13 (C) modifying certain power plant operating conditions at the Facility to allow AES to provide additional capacity and energy; 14

⁹Application at 9.

¹⁰Application at 9.

¹¹Application at 11.

 $^{^{12}}$ Application at 2.

¹³Application at 16.

¹⁴Application, Exhibit 1, at 5-6.

(D) reducing the fuel supply AES must maintain; ¹⁵ (E) reducing the magnitude of a contingency event that could lead to underfrequency load shedding from a maximum of 200 MW to 189 MW; ¹⁶ (F) allowing AES and HECO to partner for the purposes of compliance with HRS §§ 342B-71 through 342B-72 and HAR §§ 11-60.1-201 through 11-60.1-206 (collectively "Greenhouse Gas Emissions Caps"); ¹⁷ and (G) permitting AES to reduce its coal combustion by modifying its fuel consumption to include biomass. ¹⁸

A. Additional Capacity and Energy: Amendment Three allows HECO to purchase from AES up to an additional 9 MW of firm capacity and the associated energy, on top of the 180 MW already committed under the Existing PPA. 19 The exact amount of additional capacity will be established by a capacity test at the Facility. 20 The price terms of the additional capacity are set forth in Table 1, below. 21

 $^{^{15}{\}rm Application}$ at 21.

¹⁶Application, Exhibit 1, at 6-7.

¹⁷Application at 21-22.

¹⁸Application at 22.

¹⁹Application at 13.

²⁰Application at 13.

²¹See Application at 15-16.

Table 1: Proposed E	nergy and C	apacity Cha	arges for the	Proposed				
Additional Capacity								
	Non-Peak Period		Priority Peak Period					
	9am - 5pm; 9pm - 7am		7am - 9am; 5pm - 9pm					
	Proposed	Current	Proposed	Current				
Additional Capacity	3.2 ¢/kWh	none	4.4095 ¢/kWh	none				
Charge								
Additional Energy	6.4 ¢/kWh	none	5.2 ¢/kWh	none				
Charge								
Additional Energy	5.2 ¢/kWh	none	none	none				
Charge Above Annual								
Threshold								

B. Reliability Bonus: Amendment Three allows AES to earn a bonus of up to \$1,000,000 for each contract year, commencing on October 1, 2015.²² According to HECO, the reliability bonus is an incentive to minimize the sudden and unplanned removals from service of both the 180 MW of capacity under the PPA, and the additional 9 MW of capacity provided by the Facility (referred to in the Application as a "Full Plant Trip").²³ The reliability bonus for each contract will be \$1,000,000 if the Facility has zero (0) Full Plant Trips, \$700,000 if the Facility has one (1) Full Plant Trip, \$500,000 if the Facility has two (2) Full Plant Trips, and \$300,000 if the Facility has three (3) Full Plant Trips.²⁴

²²Application at 16.

²³Application at 16-17.

²⁴Application at 20, and Exhibit 1, at 15.

- C. <u>Plant Operating Conditions</u>: Amendment Three allows AES to provide the additional 9 MW of capacity and energy under different operating conditions than it provides under the existing PPA. Under the Existing PPA, the Facility is dispatched at a power factor "in the range of 0.85 lagging to 0.98 leading"²⁵ Under Amendment Three, when providing the additional 9 MW of capacity, the Facility would be dispatched at a power factor "in the range of 0.90 lagging to 0.98 leading"²⁶
- D. <u>Fuel Supply Arrangements</u>: The Existing PPA requires AES to maintain a 45-day fuel supply on Oahu, but does not provide for damages should AES breach this requirement.²⁷ Amendment Three establishes a new fuel supply protocol that

²⁵Application, Exhibit 1, at 5. Power factor represents the relationship between real power and reactive power, both of which are produced by a generator, such as the Facility. The greater the amount of real power generated, relative to reactive power, the greater the power factor. Real power is the energy that is used to produce work. Reactive power is primarily used to control voltage. A lagging power factor means that load is inductive and the generator is supplying reactive power to the system. A leading power factor means the load is capacitive and the system is sending reactive power to the generator. Changing the lagging power factor from 0.85 to 0.9 would reduce the amount of reactive power that the Facility could produce. If HECO needed more reactive power than the Facility could produce, the reactive power would have to be produced by another generating unit.

²⁶Application, Exhibit 1, at 6.

 $^{^{27}}$ Application at 20-21.

requires AES to maintain no less than a 25-day average fuel supply for every calendar month, and for each day, not less than ten (10) days' supply. 28 AES must maintain this fuel supply either on Oahu or on a ship docked at Barbers Point. 29 Under Amendment Three, if AES fails to maintain the required fuel supplies, and as a result must dispatch the Facility at a lower level to conserve fuel, HECO may require AES to pay certain costs to replace AES' production. 30

E. <u>Underfrequency Load Shedding</u>: Under the Existing PPA, when AES has a Full Plant Trip, the full 180 MW output of the Facility is lost to HECO's system while the Facility's auxiliary loads remain connected and become a load on HECO's system.³¹ The net effect is a 200 MW generation deficit on the system.³² Under Amendment Three, AES must modify its protective relaying scheme, allowing it to instantaneously trip the Facility's auxiliary loads during a Full Plant Trip.³³ Accordingly, under Amendment Three, the generation deficit on

²⁸Application at 21.

²⁹Application at 21.

 $^{^{30}}$ Application at 21.

³¹Application, Exhibit 1, at 6.

³²Application, Exhibit 1, at 6.

³³Application, Exhibit 1, at 6.

HECO's system would be 189 MW in the event of a Full Plant Trip, instead of 200 MW. 34

- F. <u>Greenhouse Gas Partnership</u>: Under Amendment Three,
 HECO would partner with AES and combine the HECO Companies'
 Greenhouse Gas Emissions Cap with AES's Greenhouse Gas Emissions
 Cap, for purpose of complying with the HRS §§ 342B-71 through
 342B-72 and HAR §§ 11-60.1-201 through 11-60.1-206.35
- G. <u>Biomass</u>: Under Amendment Three, AES may reduce its coal combustion by modifying its fuel consumption to include biomass.³⁶

В.

HECO's Application

HECO requests that the commission:

- 1. Approve Amendment Three;
- 2. Find that the purchased power costs to be incurred by HECO pursuant to Amendment Three are just and reasonable;
- 3. Find that the purchased power arrangements under Amendment Three, pursuant to which HECO will purchase energy on a

³⁴Application, Exhibit 1, at 6.

 $^{^{35}}$ Application at 21-22 ("Greenhouse Gas Partnership Agreement").

³⁶Application at 22.

firm dispatchable basis from AES, are prudent and in the public interest;

- 4. Authorize HECO to include the purchased power costs and related revenue taxes that HECO incurs pursuant to Amendment Three, in HECO's revenue requirements for ratemaking purposes and for the purposes of determining the reasonableness of HECO's rates during the term of Amendment Three;
- 5. Authorize HECO to include the power purchase costs and related revenue taxes that HECO incurs pursuant to Amendment Three, including the capacity charge, the energy charge, and for each contract year commencing on October 1, 2015, the reliability bonus, in HECO's Energy Cost Adjustment Clause ("ECAC") and Purchased Power Adjustment Clause ("PPAC"), 37 to the extent that such costs are not included in base rates; and
- 6. Grant such other relief as may be just and reasonable under the circumstances. 38

HECO filed its Application pursuant to HAR §§ 6-74-22(a) and 6-60(6)(2).39

³⁷In response to PUC-HECO-IR-35, HECO clarified that the reliability bonus would be recovered only through the PPAC.

³⁸Application at 3.

³⁹Application at 6.

Procedural Background

On January 22, 2016, HECO filed the Application.

On January 29, 2016, HECO moved for a protective order in this docket.

On February 11, 2016, Blue Planet Foundation ("Blue Planet") moved to intervene in this docket.

On May 9, 2016, the commission issued Protective Order No. 33689 ("Protective Order No. 33689"), to govern the classification, acquisition, and use of trade secrets, and other confidential information produced in this docket.

On August 18, 2016, the commission issued Order No. 33879, in which the commission denied Blue Planet's motion to intervene, granted Blue Planet limited participant status, and instructed the Parties to file a proposed stipulated procedural order.

On August 24, 2016, the Parties filed a proposed stipulated procedural order.

On September 15, 2016, the commission issued Order No. 33917 in this docket ("Order No. 33917"), establishing the issues and setting the procedural schedule in this docket. The procedural schedule set forth deadlines for the Parties to file information requests ("IRs"), respond to IRs, and file statements of position.

The commission issued IRs to HECO on May 25, 2016, July 14, 2016, and September 28, 2016. HECO responded to the commission's IRs on June 14, 2016, July 25, 2016, and October 5, 2016, respectively, including confidential responses, subject to Protective Order No. 33689.

Blue Planet issued IRs to HECO on October 7, 2016, 40 and on October 20, 2016, HECO responded to Blue Planet's IRs.

The Consumer Advocate issued IRs to HECO and to Blue Planet on September 8, 2016. On September 23, 2016, both HECO and Blue Planet responded to the Consumer Advocate's IRs. HECO's response included confidential information, subject to Protective Order No. 33689. The Consumer Advocate issued sixteen (16) supplemental information requests ("SIRs") to HECO on October 7, 2016 ("CA-HECO-SIRs -1 to -16"). HECO responded to these SIRs on October 20, 2016.

HECO's responses to CA-HECO-SIR-3 and CA-HECO-SIR-8 included confidential information, subject to Protective

⁴⁰Blue Planet initially understood that it was precluded from issuing information requests. Based on further discussion with the Parties, Blue Planet issued its initial discovery requests at the deadline for supplemental information requests.

See "Blue Planet Foundation's Supplemental Information Requests to Hawaiian Electric Company, Inc., Blue Planet-HECO-SIRs-1 to -4; and Certificate of Service," at 2, filed on October 7, 2016.

Order No. 33689.⁴¹ According to HECO, its answer to CA-HECO-SIR-10 included "proprietary financial information of AES" that HECO believes "AES objects to providing to Blue Planet, even under [Protective Order No. 33689]."⁴² Based on AES's objection, HECO provided its answer to CA-HECO-SIR-10, subject to Protective Order No. 31704 in Docket No. 2012-0197, a docket to which the Consumer Advocate is a party, but Blue Planet is not.⁴³ HECO's answer to CA-HECO-SIR-10 included four (4) attachments, totaling 817 pages, consisting of the following:

Attachment 1 - AES's 12/31/2013 submittal, which
includes:

- Hawaiian Electric's two 12/24/2013 letters requesting financial information
- AES's response to Hawaiian Electric's two 12/24/2013 letters
 - o AES's 12/31/2013 letter
 - o AES's proposed term sheet
 - o Capital investment information
 - o Financial projections
 - o Financial statements (2000-2012)
 - o Fuel revenue vs. fuel cost
 - o Note Purchase Agreement dated 7/30/2003
 - o Debt Service Reserve LOC Reimbursement Agreement dated 7/30/2003

Attachment 2 - AES's 11/15/2013 submittal

• Fuel cost information

^{41&}lt;u>See</u> "Responses to the Consumer Advocate's and Blue Planet's Supplemental Information Requests," ("HECO SIR Responses") at 1, filed on October 20, 2016.

⁴²See HECO SIR Responses, at 1.

⁴³See HECO SIR Responses, at 1.

Attachment 3 - AES's 11/25/2013 submittal

• Coal supply agreement and other fuel cost information

Attachment 4 - Financial statements (2014-2015).44

On November 7, 2016, in response to HECO's answer to CA-HECO-SIR-10, Blue Planet filed a motion for leave to file a motion to compel discovery. On November 16, 2016, the Consumer Advocate advised the commission that it was not taking a position on Blue Planet's Motion to Compel.

On November 10, 2016, the Consumer Advocate filed its Statement of Position. 46 On November 10, 2016, Blue Planet also filed its Statement of Position. 47 On November 23, 2016, HECO filed its Reply Statements of Position to the Consumer Advocate and Blue Planet. 48

^{44 &}quot;Documents being submitted to show compliance with 'ground rules' pursuant to Decision and Order No. 31200" filed in Docket No. 2012-0197, on October 20, 2016.

⁴⁵ "Motion for Leave to File: Motion to Compel Disclosure and to Amend Procedural Schedule Pending Disclosure; Attachment 1; and Certificate of Service," ("Motion to Compel") filed on November 7, 2016.

⁴⁶ "Division of Consumer Advocacy's Statement of Position," ("Consumer Advocate SOP") filed on November 10, 2016.

^{47&}quot;Blue Planet Foundation's Statement of Position; Declaration of Richard Wallsgrove; Exhibits A-M; Certificate of Service," ("Blue Planet SOP") filed on November 10, 2016.

⁴⁸ "Hawaiian Electric Company, Inc.'s Reply to Statements of Position of Division of Consumer Advocacy and Blue Planet Foundation; and Certificate of Service," ("HECO Reply SOP") filed on November 23, 2016.

Issues

As identified by the commission in Order No. 33917, filed on September 15, 2016, the issues in this proceeding are:

- 1. Whether the purchased power costs under the Amendment are just and reasonable;
- Whether the proposed purchased power arrangements under the Amendment, pursuant to which HECO will purchase energy on a firm dispatchable basis from AES, are prudent and in the public interest;
- 3. Whether HECO should be allowed to include the purchased power costs (and related revenue taxes) incurred by the Company pursuant to the Amendment in the Company's revenue requirements for ratemaking purposes and for the purposes of determining the reasonableness of the Company's rates during the term of the Amendment;
- 4. Whether HECO should be allowed to include the purchased power costs (and related revenue taxes) incurred by the Company pursuant to the Amendment, including the Capacity Charge, Energy Charge and, for each Contract Year commencing on October 1, 2015, the reliability bonus, in the Company's [ECAC] and [PPAC], to the extent that such costs are not included in base rates; and
- Whether any other relief as may be just and reasonable should be granted under the circumstances.

Order No. 33917, at 2.

Discussion

A.

Authority for HECO's Request

HECO seeks the commission's approval of Amendment Three pursuant to HAR Chapter 6-61, HAR Chapter 6-74, for approval of the rates, and HAR Chapter 6-60-6(2) for approval of the collection of the proposed rates through the ECAC and PPAC. 49 HAR § 6-74-22, which governs electric utilities' purchase of energy and/or capacity, provides:

§ 6-74-22 <u>Rates for purchases</u>. (a) Rates for purchases shall:

- (1) Be just and reasonable to the electric consumer of the electric utility and in the public interest;
- (2) Not discriminate against qualifying cogeneration and small power production facilities; and
- (3) Be not less than one hundred per cent of avoided cost for energy and capacity purchases to be determined as provided in [HAR] § 6-74-23 from qualifying facilities and not less than the minimum purchase rate.

HAR § 6-74-22(a).

⁴⁹Application at 6-7. As noted above, in response to PUC-HECO-IR-35, HECO clarified that the reliability bonus would be recovered only through the PPAC.

HAR § 6-74-15(b)(1) provides that HAR § 6-74-22 does not prohibit an electric utility or any qualifying facility from agreeing to a rate for any purchase, or terms or conditions relating to any purchase, which differ from the rate or terms or conditions which would otherwise be required by HAR § 6-74-22.

В.

HECO's Position

As discussed in more detail below, HECO argues that Amendment Three provides direct economic benefits to its customers; improves the reliability of HECO's electric power system; and is consistent with the commission's Inclinations. 50

According to HECO, Amendment Three provides direct economic benefit to its customers. Specifically, HECO argues that Amendment Three provides "additional firm dispatchable capacity" in a cost effective manner. HECO further argues that because the charge for additional energy under Amendment Three is "fixed for the balance of the PPA term and does not fluctuate . . ." that Amendment Three "provides a hedge against oil price volatility." 52

 $^{^{50}}$ Application at 2.

⁵¹Application at 12.

⁵²Application at 15.

HECO further argues that Amendment Three increases system reliability, because it will "alleviate anticipated reserve capacity short falls," obligates AES "to continue and/or implement certain operational commitments to maintain the reliability of the Oahu Grid" and encourages AES, by way of the reliability bonus, "to minimize unplanned removals from service." 53

Finally, HECO argues that Amendment Three is in the public interest because it is consistent with the Inclinations. Specifically, HECO argues that Amendment Three "is projected to provide direct energy cost savings and will help lower customer bills while providing additional firm dispatchable capacity" to HECO's grid. 54

C.

The Consumer Advocate's Position

The Consumer Advocate recommends that the commission not approve Amendment Three. 55 The Consumer Advocate cites concerns with Amendment Three's price terms, its purported reliability

 $^{^{53}}$ Application at 12.

 $^{^{54}}$ Application at 4.

⁵⁵Consumer Advocate SOP at 1.

benefits, and its inconsistency with Hawaii's renewable portfolio standard ("RPS").56

With respect to Amendment Three's price terms, Consumer Advocate argues that HECO's projected cost savings may not be realized, depending on what fossil fuel forecast is used. 57 The Consumer Advocate further argues that, given the uncertainty of oil prices and oil-price forecasts, Amendment Three's purported value against volatility in oil prices is hedge not well supported. 58 The Consumer Advocate suggests that it is not clear that Amendment Three reflects optimal resource acquisition decisions, and that customers should not bear costs for redundant services that are not reasonably priced. 59 The Consumer Advocate states that it is not clear that energy purchased pursuant to Amendment Three will displace higher cost fossil fuel generation. 60

With respect to system reliability, the Consumer Advocate states that Amendment Three is not an appropriate means of increasing the reliable supply of electricity

⁵⁶Hawaii's RPS law is codified in Part V of HRS Chapter 269, specifically, HRS §§ 269-91 to 269-96.

⁵⁷Consumer Advocate SOP at 9.

⁵⁸Consumer Advocate SOP at 10-11.

⁵⁹Consumer Advocate SOP at 11-12.

⁶⁰Consumer Advocate SOP at 15.

to HECO customers. 61 The Consumer Advocate further states that Amendment Three is not the best way to alleviate reserve capacity shortfalls.62 The Consumer Advocate argues that many of the reliability improvements proposed in Amendment Three have either already been completed and will be continued, or have not been adequately demonstrated to increase system reliability. 63 Consumer Advocate argues that Amendment Three's reliability bonus is unnecessary because the Existing PPA properly motivates AES to unplanned Full Plant Trips, and AES "admirably dedicated to keeping the [F] acility online." 64 Finally, the Consumer Advocate objects to the retroactive calculation of the reliability bonus, unless the commission also considers "retroactive reliability penalties" for past Facility outages.65

With respect to RPS compliance, the Consumer Advocate notes that although Amendment Three allows AES to substitute biomass for coal, biomass is currently cost prohibitive for consumers. 66 The Consumer Advocate argues that the energy provided

⁶¹Consumer Advocate SOP at 16.

⁶²Consumer Advocate SOP at 17-20.

⁶³Consumer Advocate SOP at 22.

⁶⁴Consumer Advocate SOP at 24 (citation omitted).

⁶⁵Consumer Advocate SOP at 26.

⁶⁶Consumer Advocate SOP at 25.

by Amendment Three will be fossil fuel-based, and therefore not consistent with the State's goal of moving away from imported fossil fuel for electricity.⁶⁷

D.

Blue Planet's Position

Blue Planet opposes the Application, stating that Amendment Three: (1) is contrary to Hawaii's long-standing energy policy against expanding coal generation; (2) fails to address the detrimental impact of inflexible coal generation on HECO's ability to integrate more renewable energy; (3) burdens ratepayers with the costs and risks of coal emissions; (4) unreasonably burdens ratepayers with an unprecedented windfall for AES, in the form of the reliability bonus; and (5) shifts tax obligations to ratepayers and/or creates operational risks for the Facility. 68

With respect to Hawaii's energy policy, Blue Planet argues that Hawaii has a policy against expanding coal generation, going back as far as 2008, and that HECO has endorsed this policy. 69 Blue Planet also cites the Inclinations as a "vision for a

⁶⁷Consumer Advocate SOP at 25.

⁶⁸Blue Planet SOP at 1.

⁶⁹Blue Planet SOP at 2-3, citing "Hawaii Clean Energy Agreement" dated October 20, 2008, available online at http://files.hawaii.gov/dcca/dca/HCEI/HECI%20Agreement.pdf.

course-correction that will yield a new and sustainable business model" for HECO. 70 Blue Planet therefore argues that Amendment Three's proposed expansion of coal is "sharply at odds" with Hawaii's long-standing energy policy and thus should be rejected. 71

Blue Planet also argues that Amendment Three would add inflexible coal generation that would inhibit HECO's ability to integrate more renewable energy. Blue Planet cites HECO's analysis in its April 2016 PSIP Update, in which HECO stated: [o]ur ability to integrate more renewable generation onto the grid in coming decades is improved without a large, inflexible single generator such as AES on the system . . [w]ithout this constraint and its relative inflexibility, increased amounts of energy can more easily be integrated onto the system." Blue Planet argues that any amendment to the PPA "should reduce rather than expand or maintain the problematic impact of a large inflexible generator" such as the Facility.

⁷⁰Blue Planet SOP at 3.

⁷¹Blue Planet SOP at 4.

⁷²Blue Planet SOP at 4.

⁷³Blue Planet SOP at 4, citing "HECO's April 1, 2016 Power Supply Improvement Plan Update," filed in Docket No. 2014-0183, on April 1, 2016, at D-4.

⁷⁴Blue Planet SOP at 5 (emphasis in original).

Blue Planet argues that the Greenhouse Gas Partnership Agreement set forth in Amendment Three burdens ratepayers with the costs and risks of coal emissions. Blue Planet states that the greenhouse partnership will result in an increase in greenhouse gas emissions of up to 71,344 tons over the PPA term. Blue Planet argues that the cost of these emissions is approximately \$1 million to \$5 million, and that Amendment Three fails to consider or recoup this cost from AES. Blue Planet further argues that this failure renders Amendment Three unreasonable, pursuant to HRS §269-6, which states:

making determinations In of the reasonableness of the costs of utility system improvements and operations, commission shall explicitly consider, quantitatively or qualitatively, the effect of the State's reliance on fossil fuels on price volatility, export of funds for fuel imports, fuel supply reliability risk, and greenhouse gas emissions. The commission may determine that short-term costs or direct costs that are higher than alternatives relying more heavily on fossil fuels are reasonable, considering

⁷⁵Blue Planet SOP at 6.

 $^{^{76}\}mbox{Blue}$ Planet SOP at 6, citing the Application, Exhibit 5, at 4.

 $^{^{77}} Blue$ Planet SOP at 6, citing the U.S. Environmental Protection Agency's social cost of carbon of emissions in 2020, which ranges from to \$12 to \$62 dollars per ton.

the impacts resulting from the use of fossil fuels. 78

Blue Planet states that the reliability bonus unreasonably burdens ratepayers with an unprecedented windfall for AES. Blue Planet first states that HECO has no other PPA that utilizes a reliability bonus. 79 Blue Planet then argues there is no clear link between the amount of the reliability bonus and the actual costs AES would incur to maintain reliability. 80 Blue Planet further argues that it is already in AES' financial interest to maximize reliability in order maximize its revenues and avoid violating the Existing PPA. 81 Blue Planet argues that the reliability bonus' unreasonable nature is exacerbated by HECO's request to award it retroactively. 82

Blue Planet argues that Amendment Three would shift tax obligations to ratepayers and/or create operational risks for AES.83 Blue Planet notes that coal used to fulfill a PPA

 $^{^{78}\}mbox{Blue}$ Planet SOP at 6-7, citing HRS § 269-6(b), although referencing the quoted passage as HRS § 269-16.22 (emphasis added).

⁷⁹Blue Planet SOP at 8, citing HECO's response to Blue Planet-HECO-SIR-3(a).

⁸⁰Blue Planet SOP at 9.

⁸¹Blue Planet SOP at 9.

⁸²Blue Planet SOP at 9-12.

⁸³Blue Planet SOP at 13. Blue Planet references AES's statements that if AES is responsible for paying the Barrel Tax, it would be "forced to make decisions based more on financials

in effect as of June 30, 2015, is exempt from the Environmental Response, Energy, and Food Security Tax (the "Barrel Tax"), 84 but that Amendment Three, which was executed after June 30, 2015, would subject the entire 189 MW capacity of the Facility to the Barrel Tax.85 Blue Planet further states that HRS § 243-3.5(c) allows AES to pass the Barrel Tax on to HECO, which may then recover the cost of the Barrel Tax from its ratepayers.86 Blue Planet argues that even if HECO could avoid passing the Barrel Tax obligation from AES to its ratepayers, AES would be forced to make decisions that affect the Facility's reliability.87 Blue Planet argues that Amendment Three

than good engineering practices related to maintenance and capital improvements" thus "potentially affect[ing] the facility's reliability." <u>Id.</u> (citing Blue Planet SOP, Exhibit L, the President of AES' Testimony before the State of Hawaii, Senate Committee on Ways and Means, on February 22, 2013 ("AES February 22, 2013 Testimony")).

⁸⁴Blue Planet SOP at 13, citing HRS § 243-3.5(c).

⁸⁵Blue Planet SOP at 13. June 30, 2015 is a significant date because HRS § 243-3.5(c) states that the Barrel Tax "shall not apply to coal used to fulfill a signed power purchase agreement between an independent power producer and an electric utility that is in effect as of June 30, 2015." Amendment Three was executed after this date, on November 13, 2015. Application, Exhibit 1, at 25.

⁸⁶Blue Planet SOP at 13.

⁸⁷Blue Planet SOP at 14, citing AES February 22, 2013 Testimony.

would either inadvertently shift the burden of the Barrel Tax to ratepayers, or impose operational risks on ratepayers. 88

Ε.

HECO's Reply

In response to the Consumer Advocate's and Blue Planet's Statements of Position, HECO re-asserts that the commission should approve Amendment Three, because it meets an immediate need in a cost-effective manner, provides economic and reliability benefits to customers, and because it does not impede Hawaii's and HECO's renewable energy goals.⁸⁹ In addition, HECO states that under the most recent fuel price forecasts, HECO customer bills will be reduced under Amendment Three from the years 2018 through 2022.⁹⁰

F.

Findings and Conclusions

i.

Background for the Commission's Analysis

The commission sets forth the following specific findings and conclusions in support of its decision that HECO has

⁸⁸Blue Planet SOP at 15.

⁸⁹HECO Reply SOP at 19.

⁹⁰HECO Reply SOP at 8.

not met its burden of proving that the commission's approval of Amendment Three is reasonable and in the public interest:

- 1. Act 97, 2015 Session Laws of Hawaii, which took effect on July 1, 2015, amends HRS § 269-92(a) of the RPS law by:

 (1) increasing the existing RPS for 2020, from twenty-five percent (25%) to thirty percent (30%); and (2) adopting an RPS of seventy percent (70%) by 2040 and one-hundred percent (100%) by 2045.
- 2. HRS § 269-6, governing the commission's general powers and duties, provides in part:

§269-6 General powers and duties . . .

- The public utilities commission shall consider the need to reduce the State's reliance on fossil fuels through energy efficiency and increased renewable energy generation in exercising its authority and duties under this chapter [269]. In making determinations of the reasonableness utility of the costs of system improvements and operations, the commission shall explicitly consider, quantitatively qualitatively, the effect of the State's reliance on fossil fuels on price volatility, export of funds for fuel imports, fuel supply reliability risk, and greenhouse gas emissions. The commission may determine that short-term costs or direct costs that are higher than alternatives relying more heavily on fossil fuels are reasonable, considering the impacts resulting from the use of fossil fuels.
- (c) In exercising its authority and duties under this chapter [269], the public utilities commission shall consider the costs and benefits of a diverse fossil fuel portfolio and of maximizing the efficiency of all electric utility assets to lower and stabilize the cost of electricity. Nothing in this section [269-6] shall subvert the obligation of electric utilities to meet the

renewable portfolio standards set forth in section 269-92.

HRS § 269-6(b) and (c).

- 3. On April 28, 2014, the commission issued the Inclinations and emphasized the need for the electric utilities to stabilize and lower energy rates and/or costs and customer bills through actions that include the aggressive pursuit of new clean energy sources and expanding choices for customers to manage their energy use.⁹¹
- 4. The commission, as part of its Inclinations, also focused on: (A) the need for new renewable energy projects to lower system costs and maximize the use of cost-effective renewable resources; and (B) the Hawaiian Electric Companies' mandate to "continue to pursue alternative procurement strategies to ensure that the lowest cost utility-scale energy projects are acquired." 92

ii.

Amendment Three and Hawaii's Energy Policy

5. For the following reasons, the commission finds that Amendment Three is inconsistent with HRS § 269-92, which requires an increasing percentage of electricity to be

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⁹¹Inclinations at 2-3.

⁹² Inclinations at 4-5 (footnote and text therein omitted).

generated from renewable energy sources, as well as inconsistent with the Inclinations' guidance regarding the need for new renewable energy projects to lower system costs and maximize the use of cost-effective renewable resources.

6. HECO addressed the effect of the Facility on integrating more renewable generation in the April 2016 PSIP Update:

Our ability to integrate more renewable generation into the grid in the coming decades is improved without a large, inflexible single generator such as AES on the system. Without this constraint and its relative inflexibility, increased amounts of renewable energy can more easily be integrated into the system. 93

7. Although in response to PUC-HECO-IR-29, HECO states that the additional 9 MW from the Facility will neither increase nor decrease the amount of renewable generation that can be added to the grid, this claim is at odds with HECO's claims in both the April 2016 and December 2016 PSIP Updates. HECO's contradictory claims notwithstanding, increasing coal fired generation is plainly inconsistent with the goals of HRS § 269-92.

⁹³April 2016 PSIP Update, Book 1, at D-4. HECO reiterated this statement in its most recent PSIP filing, as well. See "Hawaiian Electric Companies' PSIP Update Report, filed on December 23, 2016," filed in Docket No. 2014-0183, on December 23, 2016 ("December 2016 PSIP Update"), Book 1, at D-6 through D-7.

- 8. Although Amendment Three would authorize AES to reduce coal combustion by modifying its fuel consumption to include biomass, HECO has acknowledged that biomass is currently cost-prohibitive for customers. 94 Consequently, fossil fuel will likely continue to provide the additional energy pursuant to Amendment Three.
- 9. According to HECO, Amendment Three could result in an increase of carbon dioxide emissions by "approximately 71,344 tons over the 2017-2022 PPA term." ⁹⁵ The commission considers Amendment Three's potential to significantly increase greenhouse gas emissions to undermine the claims regarding its reasonableness.

iii.

Ratepayer Impacts

- 10. For the following reasons, the commission finds that the pricing proposed in Amendment Three is not just and reasonable.
- 11. HECO claims that the proposed pricing in Amendment Three is reasonable because the net present value ("NPV") of such payments "is less than the NPV of HECO's estimated

⁹⁴HECO Response to PUC-HECO-IR-39.

⁹⁵Application, Exhibit 5, at 4.

long-run avoided costs assuming that [liquefied natural gas] and other lower-cost resources are realized as assumed in the PSIP. Absent a successful transition from oil to [liquefied natural gas], is notably lower."96 the NPV of such payments to AES HECO calculated the long term avoided cost by comparing the total system costs with and without Amendment Three's additional 9 MW of capacity from 2017-2022.97 The total energy and capacity payments to AES depend on which fuel forecast price is used, and are higher than HECO's avoided cost using lower fuel prices, and lower than HECO's avoided costs using higher fuel prices.98

12. The Consumer Advocate states:

Based on the fossil fuel forecast from the US EIA February 2016 Short Term Energy Outlook ("STEO"), it is not clear whether Amendment [Three] will displace higher cost oil-fired generation. . . If an analysis does not clearly reflect lower levelized pricing for Amendment [Three] that would be less than the calculated levelized costs from oil-fired generation, the Commission should not

⁹⁶Application at 16.

⁹⁷Application, Exhibit 3, Attachment E. Pursuant to Protective Order No. 33689, HECO redacted certain information from the Application, which included projected annual payment amounts.

⁹⁸Application, Exhibit 3, Attachment E and HECO's Responses to PUC-HECO-IR-3 and PUC-HECO-SIR-2. Pursuant to Protective Order No. 33689, HECO redacted certain information from the Application and its Responses to PUC-HECO-IR-3 and PUC-HECO-SIR-2, which included projected cost calculations.

conclude that the pricing of Amendment [Three] is reasonable.99

- 13. Amendment Three carries significant ratepayer costs, including imputed debt, 100 costs for increasing spinning reserve, 101 and the potential of costs associated with the reliability bonus.
- 14. Fuel price forecasts are inherently uncertain. HECO has provided three significantly different fuel price forecasts in this docket. 102 Amendment Three's projected cost reductions, if any, depend on which fuel forecast is used. Given this uncertainty, it is not clear to the commission that Amendment Three will result in reduced customer bills. 103
- 15. The Barrel Tax, set forth in HRS § 243-3.5(b)-(c), provides, in pertinent part:

In addition to subsection (a), the tax shall also be imposed on each one million British thermal units of fossil fuel sold by a distributor to any

⁹⁹Consumer Advocate SOP at 16.

¹⁰⁰Application at 26.

¹⁰¹HECO's Responses to PUC-HECO-IR-25 and PUC-HECO-SIR-4.

 $^{^{102}\}mbox{Application},$ Exhibit 3, at 2; HECO's Response to PUC-HECO-IR-3; HECO's Response to PUC-HECO-SIR-2; HECO Reply SOP at 5-9.

¹⁰³HECO's Responses to PUC-HECO-IR-25, PUC-HECO-SIR-2 and PUC-HECO-SIR-4. Pursuant to Protective Order No. 33689, HECO redacted certain information from the Application and its Responses to PUC-HECO-IR-25, PUC-HECO-SIR-2 and PUC-HECO-SIR-4, which included certain projected cost calculations that the commission used in making its own calculations.

retail dealer or end user, other than a refiner, of fossil fuel. The tax shall be 19 cents on each one million British thermal units of fossil fuel;

The tax imposed by this subsection shall be paid by the distributor of the fossil fuel.

- (c) The tax imposed under subsection (b) shall not apply to coal used to fulfill a signed power purchase agreement between an independent power producer and an electric utility that is in effect as of June 30, 2015. An independent power producer shall be permitted to pass the tax imposed under subsection (b) on to an electric utility. In which case, the electric utility may recover the cost of the tax through an appropriate surcharge to the end user that is approved by the public utilities commission.
- 16. The Barrel Tax "shall not apply to coal used to fulfill a signed power purchase agreement between an independent power producer and an electric utility that is in effect as of June 30, 2015." 104 It is not clear whether the Barrel Tax would apply only to coal used to provide the additional 9 MW of capacity under Amendment Three, or if the execution of Amendment Three after June 30, 2015 would make all coal burned at the Facility subject to the Barrel Tax.
- 17. HRS § 243-3.5(c) allows an independent power producer, such as AES, to pass through the Barrel Tax to the electric utility. In such a case, the electric utility,

¹⁰⁴HRS § 243-3.5(c).

- e.g., HECO, could attempt to "pass through" the Barrel Tax to its customers through a surcharge.
- 18. In response to Blue Planet's Information Request regarding the Barrel Tax, BP-HECO-SIR-4, HECO stated the following:

Hawaiian Electric does not know the answers to this SIR to the extent they pertain to AES's position or action related to [HRS] § 243-3.5. Hawaiian Electric has not examined or sought any tax guidance on whether any coal used will be subject to the tax under [HRS] § 243-3.5. The pricing structure and pricing level is explained in the Application and related exhibits.

- 19. Amendment Three does not appear to have any cost recovery mechanism for the Barrel Tax. Amendment Three's lack of such a cost recovery mechanism, coupled with the "pass through" provision in HRS § 243-3.5(c), could expose HECO to significant additional liabilities under Amendment Three.
- 20. Additionally, the Greenhouse Gas Emissions Agreement provides a significant benefit to AES. By partnering with HECO, AES may be able to avoid costs associated with reducing its production or incurring penalties for noncompliance with the Greenhouse Gas Emissions Caps. Although this benefit is significant to AES, Amendment Three does not reflect an equivalent benefit for ratepayers, either in pricing or in other terms.

Reliability, the Reliability Bonus, and Fuel Inventory

- 21. For the following reasons, the commission finds that Amendment Three will not significantly increase the reliable supply of electricity to HECO and its customers.
- the additional 9 MW of capacity and associated energy provided by Amendment Three. The commission also agrees with the Consumer Advocate's assertion that Amendment Three is "not an appropriate means of increasing the reliable supply of electricity to HECO customers." 105
- 23. The Reliability Bonus set forth in Amendment Three, is unlikely to encourage AES to improve its reliability, is not related to the costs of a plant outage, and given the requested effective date of October 1, 2015, would constitute retroactive ratemaking.
- 24. HECO provided the commission with the Facility's outage history for the last ten years. 106 If the reliability bonus were already in effect, AES would have been eligible for the

¹⁰⁵Consumer Advocate SOP at 16.

¹⁰⁶HECO's Response to PUC-HECO-IR-16. Pursuant to Protective Order No. 33689, HECO redacted certain information from its Response to PUC-HECO-IR-16. Such redacted information includes certain information related to the Facility's reliability.

reliability bonus in each of the last ten years. A reward for performance should encourage actions taken to improve performance, but instead, the reliability bonus appears to be a windfall for performance that AES has regularly achieved. There is no basis in the record for the amount of the reliability bonus, and it is not an appropriate means to motivate AES to keep the Facility in service. Any incentive to avoid a plant outage should not exceed the incurred cost of the outage or reward under-performance, but should encourage improved performance and penalize under-performance. Additionally, any type of incentive that is paid to a power producer should provide commensurate benefits to ratepayers.

25. The commission has a longstanding policy against retroactive ratemaking, to prevent the recovery of past losses or deficits via higher future rates. 107 The reliability bonus plainly presents such concerns. The retroactive application of the reliability bonus would allow AES to recover for past deficits, such as reliability improvements already undertaken by AES, 108 by imposing higher future rates on HECO's customers.

¹⁰⁷See e.g., In re Hawaiian Electric Co., Inc., et al., Docket No. 5658, Decision and Order No. 9049, filed on January 30, 1987, at 19; In re Hawaiian Electric Co., Inc., Docket No. 2010-0113, Decision and Order, filed on May 13, 2011, at 22-23.

¹⁰⁸ See Application, Exhibit 1, at 37-39.

26. Amendment Three reduces the amount of fuel inventory AES must maintain in order to reduce the financial burden to AES, and at the same time, Amendment Three requires AES to burn additional fuel to produce the additional 9 MW of energy. Reducing the fuel inventory while increasing the burn rate creates greater risk of a fuel shortage.

v.

Conclusion

- 27. The commission notes that a proposal for a contract amendment, such as that proposed in the Application, should:
 - a. Clearly identify the total benefits to be received by, and costs to, the parties to the contract amendment, and the benefits and costs to customers, so that the commission can evaluate whether the proposal is fair and reasonable;
 - b. Structure any reliability or other bonus, if included, in such a way as to reward improved performance and penalize non-performance;
 - c. Clearly identify any operating enhancements and identify the value of such enhancements as reflected in the pricing of the amendment; and
 - d. Include tax guidance on whether the amendment would result in any change in taxation, such as under the

Barrel Tax in HRS § 243-3.5, and clearly identify which party is liable for any increase in taxes, and whether such change would have any impact on customer bills, and, if so, a quantification of that impact.

28. After careful review of the docket record, balancing the potential benefits of Amendment Three with its known costs, potential costs, and risks, the commission finds and concludes that Amendment Three is not reasonable or in the public interest. Accordingly, the commission denies HECO's request to approve Amendment Three.

III.

Outstanding Motions

Protective Order No. 33689 states:

If a party or a participant designates information as confidential information, it shall provide the confidential information to all parties participants in this proceeding in accordance with the procedures described in paragraphs 13 through 15 (Section II.d, Disclosure Oualified And Non-Qualified Persons) and II.e, paragraph 16 (Section Procedure for Obtaining Access) below. 109

¹⁰⁹Protective Order No. 33689 at 5 (emphasis added).

Pursuant to Protective Order No. 33689, Blue Planet representatives Richard Wallsgrove and Melissa Miyashiro are both Qualified Persons. 110 By filing its response to CA-HECO-SIR-10 outside of this docket, and explicitly excluding Blue Planet from reviewing the response, HECO has violated Protective Order No. 33689 and left the record in this docket incomplete.

It is never appropriate for a party to file the answer to an information request outside of the docket in which it is requested. However, given Blue Planet's opposition to the Application, and the commissions' foregoing denial of the Application, Blue Planet was not substantially prejudiced by HECO's failure to comply with Protective Order No. 33689 and file its response to CA-HECO-SIR-10 in this docket. Blue Planet's Motion to Compel is therefore denied.

¹¹⁰ "Delivery of Blue Planet Foundation Signed Protective Agreement; Docket No. 2016-0007," filed on September 22, 2016.

¹¹¹ Consistent with HAR § 6-61-1, the commission refers to the ("HRCP") Hawaii Rules of Civil Procedure for quidance. HRCP Rule 61 provides as follows: "No error in either the admission or the exclusion of evidence and no error or defect in any ruling or order or in anything done or omitted by the court or by any of the parties is ground for granting a new trial or for setting aside a verdict or for vacating, modifying, or otherwise disturbing a judgment or order, unless refusal to take such action appears to the court inconsistent with substantial justice. The court at every stage of the proceeding must disregard any error or defect in the proceeding which does not affect the substantial rights of the parties." See Nishtani v. Baker, 82 Hawaii 281, 292, 921 P.2d 1182, 1193 (1996) (holding that failure to serve a notice of substitution of court-appointed foreclosure Commissioner was a

Nevertheless, HECO's failure to file its response to CA-HECO-SIR-10 leaves the record in this docket incomplete. Therefore, the commission directs HECO to file its response to CA-HECO-SIR-10 in this docket no later than January 13, 2017.

IV.

Orders

- HECO's request to amend its Existing PPA with AES, set forth in its Application dated January 22, 2016, is denied without prejudice.
- 2. Given the commission's denial of HECO's request to amend its PPA, the commission takes no action on HECO's other requests. Specifically:
- A. HECO's request for authorization to include the purchased power costs and related revenue taxes that HECO incurs pursuant to Amendment Three, in HECO's revenue requirements for ratemaking purposes and for the purposes of determining the

violation of HRCP Rule 5(a), but the failure did not affect the parties' substantial rights, and was, thus, harmless error pursuant to HRCP 61); see also, In re Robert's Tours & Transp., Inc., 104 Hawaii 98, 108, 85 P.3d 623, 633 (2004) (explaining that where an appellant's substantial rights were not impaired by a technical violation of the Hawaii Administrative Procedure Act, the technical violation was not sufficient to justify overturning a commission order).

reasonableness of HECO's rates during the term of Amendment Three; and

- B. HECO's request for authorization to include the power purchase costs and related revenue taxes that HECO incurs pursuant to Amendment Three, including the capacity charge, the energy charge, and for each contract year commencing on October 1, 2015, the reliability bonus, in HECO's Energy Cost Adjustment Clause and Purchased Power Adjustment Clause, to the extent that such costs are not included in base rates.
- 3. Blue Planet's Motion to Compel is denied for the reasons set forth above.
- 4. HECO shall file in this docket its response to the Consumer Advocate's Supplemental Information Request CA-HECO-SIR-10 by January 13, 2017.

DONE	at	Honolulu,	Hawaii	JAN - 4 2017

PUBLIC UTILITIES COMMISSION

By Randall Y. Wase, Chair Lorraine H. Akiba, Commissioner

APPROVED AS TO FORM:

By Norman Commissioner

Mike S. Wallerstein

Commission Counsel

2016-0007.ncm

CERTIFICATE OF SERVICE

The foregoing order was served on the date of filing by mail, postage prepaid, and properly addressed to the following parties:

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